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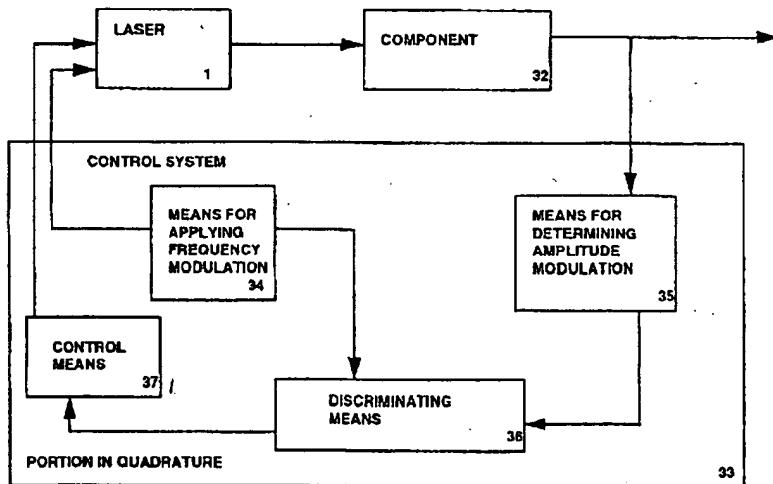
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(54) Optical frequency control system

(57) A control system for controlling the frequency of a laser 1 in an optical transmission system comprises means 34 for applying a frequency modulation to the laser, means 35 for determining an amplitude modulation present in the signal downstream of the laser and attributable to the frequency modulation, and means 36 for discriminating a portion of the amplitude modulation which is substantially in phase quadrature with the ap-

plied frequency modulation, and means 37 for controlling the frequency of the laser on the basis of the discriminated quadrature portion. An optical component downstream of the laser may have a response which converts FM to AM. The response and the frequency output of the laser can be locked to one another, without errors caused by unwanted AM in the transmitted signal modulation frequency.

FIGURE 4





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 97 30 7859

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.)										
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim											
X	US 5 204 640 A (LOGAN JR RONALD T) 20 April 1993 (1993-04-20)	1-4, 8, 16, 17, 22, 23	H04B10/155 H04B10/145										
Y	* column 2, line 39 - line 43 *	6, 7, 10, 11, 20											
A	* column 3, line 27 - line 48 *	12-14, 18, 19, 21											
	* column 6, line 41 - line 44 *												
	* figures 3B, 4 *												
Y	US 5 510 922 A (NAITO TAKAO) 23 April 1996 (1996-04-23)	6, 7, 10, 11, 20											
A	* column 3, line 40 - line 52 *	12-14, 18, 19, 21											
	* column 5, line 44 - line 50 *												
	* column 8, line 11 - line 27 *												
	* figures 1, 13 *												
			TECHNICAL FIELDS SEARCHED (Int.Cl.)										
			H04B										
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 33%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>21 August 2000</td> <td>Carrasco Comes, N</td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	21 August 2000	Carrasco Comes, N				
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ON EUROPEAN PATENT APPLICATION NO.

EP 97 30 7859

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21-08-2000

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82